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June 6, 2017

Bryan J. Hill
County Administrator
James City County
101-D Mounts Bay Road
Williamsburg, Virginia 23187-8704

RE: The Settlement at Powhatan Creek, Phase 1

Dear Mr. Hill,

I am writing you today to inform you of the incomplete items for the above referenced project phase. The deficiencies that remain for completion of the project and release of the associated sureties are listed below and are the result of several field inspections, most recently on May 26, 2017.

- BMP 1.1. Provide Interim As-built Record Drawing for BMP 1.1 (PC290) located west of the guard shack. Once submittal is reviewed, additional repair work may be warranted.

- BMP 1.2. Repair of BMP 1.2 (PC291) at the rear of the Clubhouse parcel. Issues include:

    - Provide cap for opening to valve stem.
    - Remove remaining silt fencing near outfall area.
    - Stabilize emergency spillway route and slope adjacent to outfall pipe. Clear vegetation within 10' radius of outfall structure and along length of outfall pipe run.
    - Remediation and repair of rip rap outfall apron area. Repair work is outlined in the LandTech Resources, Inc (LRI) report dated January 1, 2017, page 8.
    - Following repair, a revised as-built drawing must be submitted for review and acceptance.

- BMP 1.3. Remediation and repair of BMP 1.3 (PC292) at the rear of Lots 105-110, Rivermoor. Issues include:

    - Repairs for the inflow pipe, the riser and low flow orifice, and the emergency spillway. The majority of the needed work is outlined in the LRI report, pages 9-12. The inflow pipe elevation is nearly equal to the riser outflow elevation, causing water to pool and stagnate along the basin bottom. A remediation plan for this issue must be provided to the Division for approval prior to implementation.
    - Stabilize bank adjacent to inflow area.
    - Backfill lip along pond side of emergency spillway section. Currently, the embankment is approximately 4" below concrete lip of spillway section which allows water to undermine the spillway section.
    - Following repair, a revised as-built drawing and construction certifications must be submitted for review and acceptance.

- Pavement Improvements. Seal longitudinal crack in pavement along Cedar Brach in the vicinity of 3512 – 3536 and cracks within the most western intersection of Cedar Branch and Rivermoor.

- Private Road Acceptance. Summarize all record geotechnical data regarding street construction into a comprehensive report. Provide a statement from the geotechnical firm of record that streets were constructed in accordance with the 2009 Private Street standards (applicable at time of plan approval) and/ or state any deviations from these standards. Once submittal is reviewed, additional repair work may be warranted.

- Level Spreaders. Repair level spreaders within this Phase as noted below:
    - LS Lot 99: Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket.
    - LS Lot 96/97: Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket.
    - LS Lot 89: Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket. Swale at rear of 86-89 to be excavated approximately 18", backfilled, and regraded to ensure positive flow to level spreader. Stabilize banks and swale invert.
    - LS Lot 85: Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket. Replace damaged timber lip and backfill and compact both ends of timber level spreader lip.
    - LS Lot 65/66: Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket. Backfill and compact both sides of timber level spreader lip.

- Lot 70. Level Spreader Lot 70:
    - Provide stone materials specified on Plan Sheet 29. The stone material is to be VDOT #3, #357, #5, #56, or #57 course aggregate in galvanized mesh basket.
    - Repair undercut areas along timber level spreader lip and cut bolts flush.
    - Remediation and repair of constantly wet low area between retaining wall and level spreader. Several roof leaders and/ or foundation drains punch through the retaining wall and drip into this area. As the area remains wet, vegetation is unable to establish. A remediation plan for this issue must be provided to the Division for approval prior to implementation.

- Lot 74. Repair of sinkhole adjacent to Nyloplast drain on rear of Lot 74, 4043 Coronation.

- Lots 87-89. Grassed Swale, Lots 87-89: Repair and stabilize area. Ensure positive flow toward level spreader Lot 89 and establish consistent vegetation.

- Lots 120/121. Repair and seal of storm structure SS#2-3, located at the rear of Lots 120/121. At the time of inspection, there was significant seepage between the joints of the structure.

Sincerely,

Frances C. Geissler
Acting Director
Enginering and Resource Protection

CC: Adam Kinsman, JCC Attorney
David Musgrave, Gordon Feinblatt LLC
Mike Ware, Schempf & Ware, PLLC

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Phase 1 Attachments

LRI

LANDTECH RESOURCES, INC.

Post Construction Report

For

The Settlement at Powhatan Creek

James City County, Virginia

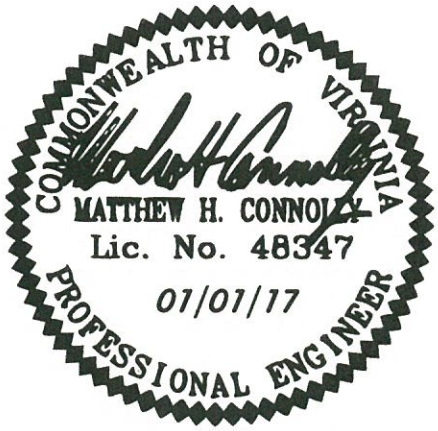
Preparation Date:

January 1, 2017

Revision Date(s):

N/A

LRI Project No. 16-602



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BMP 1.2 (10 Point Wet Pond)

BMP 1.2 is located north of the development clubhouse and serves to treat stormwater from most of the runoff from the Phase I section of the development. Asbuilt drawings of the facility have been completed and were reviewed by this firm. The following items must be addressed within the facility prior to the HOA taking over maintenance and ownership of the facility:

1. The 18" outfall pipe for the facility is lacking the designed riprap apron at the discharge point of this outfall pipe. This apron is shown on the asbuilt drawings; however, the apron has become covered with sediment and vegetation since its construction and must be cleaned and restored to its original design.

2. The sediment forebays as well as the inflow pipes were not observed during the inspection of this facility as these structures are designed to be under water and were not visible.

BMP 1.3 (4 Point Dry Pond)

BMP 1.3 is in the northwestern portion of Phase I behind lots 105 thru 110. Asbuilt drawings of the facility have been completed and were reviewed by this firm. The following items must be addressed within the facility prior to the HOA taking over maintenance and ownership of the facility:

1. The installed riser structure appears to be incorrect. The design of the structure calls for a small diameter low flow orifice, however the riser structure contains multiple circular openings. Contractor should provide a way to permanently seal all openings located in the riser structure that are not called for in the design drawings.

2. The low flow orifice was improperly installed in the riser structure and has failed and become dislodged from the structure. It appears that the low flow pipe was installed with gravel and filter fabric only and must be properly grouted into the existing circular opening in the riser structure to prevent leakage around the exterior of the low flow pipe.

3. The side wings of the concrete emergency spillway have begun to crack and separate away from the control section. The cracks should be cleaned of debris and caulked to prevent water from entering the cracks and causing future failure of the structure.

4. The side wings of the concrete emergency spillway have begun to crack and separate away from the control section. The cracks should be cleaned of debris and caulked to prevent water from entering the cracks and causing future failure of the structure.

5. The riprap as well as the grass lined channel downstream of the concrete emergency spillway should have all vegetation removed to insure proper drainage during large rainfall events.

6. The bottom of the BMP has started to grown cattails in certain areas. This vegetation should be properly removed from the BMP and should include the removal of the root mat material below the BMP surface.

7. The riprap apron installed at structure SS #3-1 is not installed per design. The apron is undersized and is lacking the correct amount of material to function properly. The riprap should be removed and the area should be properly regraded and the correct dimension of riprap should be installed per design.